

## ABSTRACT

A printed wiring board having a conductor pattern on which a pre-flux film of a stabilized quality is to be formed using a water-soluble pre-flux liquid. To this end, such an apparatus is used which includes an etching unit 12 for etching lands 5b, 6b formed on the printed wiring board 1, a rinsing unit 13 for rinsing the printed wiring board 1, a bubble removing unit 14 for removing air bubbles 58 attached to the printed wiring board 1 on immersing the printed wiring board 1 in a water-soluble pre-flux liquid 9a in a processing vessel 56, a pre-flux forming unit 15 for forming a pre-flux film 9 on the lands 5b, 6b of the printed wiring board 1 in the pre-flux liquid 9a using an in-liquid spraying unit 61, a liquid removing unit 16 for removing the pre-flux liquid 9a from the printed wiring board 1 transported from the processing vessel 56 and a rinsing unit 17 for rinsing the printed wiring board 1.